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ABSTRACT

Designed to assist practitioners with the actual conduct of career education program evaluations in teacher education, this handbook has four sections which parrallel the evaluation process. The first section describes the evaluation process and the need to assess the audience to be in a better position to decide on the procedures to use and the answers to seek. Section 2 is a guide to identifying the competencies to evaluate, listing the activities which lead to the fulfillment of the competencies, and writing evaluation questions. The third section focuses on the development of an information plan for each competency to be evaluated. It is suggested that efficient information collection requires specification of the time and place for gathering information and deciding who will participate in the evaluation and be responsible for collecting and analyzing the data. The final section describes eight ways to share evaluation findings: (1) comprehensive technical reports, (2) technical report supplements, (3) executive summaries, (4) multiple short reports targeted to the information needs of different audiences, (5) popularized reports, (6) news releases, (7) oral presentations, and (8) audiovisual presentations. Appended material includes a list of career education competencies, a competency description worksheet, and a data collection worksheet. (LRA)

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EVALUATING CAREER EDUCATION COMPONENTS IN TEACHER EDUCATION PROGRAMS

A Project of the

Interinstitutional Consortium for Career Education
Marion Education Service District
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Salem, Oregon 97301

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August, 1979

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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The activity which is subject of this report was supported by the Oregon State Department of Education. However, opinions expressed herein do not necessarily reflect the position or policy of the agency. No official Oregon State Department of Education endorsement should be inferred.

PREFACE

This document is the result of the generous and professional efforts of many persons. The contributions of these people and their colleges and universities are gratefully acknowledged. Without them, this Evaluation Handbook would not be a reality. Their names appear on the inside of the back cover.

The purpose of the Consortium project is to facilitate the ongoing efforts of Oregon colleges and universities in preparing educational personnel for the development and conduct of career education activities. Sponsors of the project are the State Department of Education, the seven Oregon colleges and universities that make up the State System of Higher Education, the eight independent colleges and universities of Oregon, and the Marion Education Service District.

The Interinstitutional Consortium for Career Education (ICCE) operates as the governing body of the project. ICCE representatives are from Oregon's public and independent institutions of higher education that prepare teachers, counselors and administrators.

An Evaluation Task Force was formed to provide the input and direction for developing an Evaluation Handbook that would examine career education components in teacher education programs. This topic was identified by the consortium representatives to be of prime importance.

An invitational evaluation workshop was conducted on January 19 and 20, 1978. The following evaluation specialists worked with the participants: Ronald Bucknam, National Institute of Education; Leo Myers, Educational Consultant; Mac McCaslin, National Center for Research in Vocational Education; and Tom Owens, Northwest Regional Educational Laboratory.

The Evaluation Task Force met throughout the year of 1978 to draft the handbook and make revisions. Special acknowledgement is due Larry Kenneke, chairperson of this Task Force who so ably guided the development of the field trial copy and conducted inservice for the field trial teachers. This Evaluation Handbook was field tested in five of the higher education institutions during 1978-79. Those results and recommendations have been incorporated into this handbook entitled, "Evaluating Career Education Components in Teacher Education Programs."

Further information about the project will be provided upon request.

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INTRODUCTION

Teacher educators have promised the public and its representatives many things. The public is now questioning whether or not these promises have been fulfilled. Federal and State legislators are asking whether or not what we are doing makes any difference to student performance. Legislators and taxpayers are becoming increasingly more reluctant to provide funds for programs which cannot explicitly demonstrate their effectiveness.

Thus there is a need for an evaluation handbook which is useful to practitioners at all levels of the educational continuum. The literature of evaluation has more or less kept pace with contemporary developments in the field. But, material is presented in a theoretical/academic manner. Little material is available to assist practitioners with the actual conduct of career education program evaluations.

This handbook takes cognizance of the breadth of career offerings in institutions of higher education, the trend toward articulated career programs along the educational ladder and from agency to agency, and the fact that not all programs can be evaluated according to a single set of assumptions and procedures. This handbook has four sections which parallel the evaluation process and are very closely related, even though they can be used to great advantage independent of one another.

The sections are concerned with Evaluation of Career Education Programs, Identifying Competencies and Evaluation Questions, Collecting and Analyzing Information, and Communicating and Using Evaluation Results. Sections divide the major aspects into topics. Appendices appear at the end of the handbook. They provide additional information which could facilitate the evaluation of higher education programs, e.g., a list of career education competencies, a competency description worksheet and a data collection worksheet.

Special recognition goes to those resources from which valuable information was drawn.

- Adams, Kay and Jerry Walker. Improving the Accountability of Career Education Programs. The Center for Vocational Education, The Ohio State University, Columbus, Ohio. 1977.
- Caspers, Wesley; Herman Hughes, David Myton and R. Doyle Slater. Career Education Personnel Certification and Program Accreditation. Interinstitutional Consortium for Career Education, Salem, Oregon. 1976.
- Fink, Arlene and Jacqueline Koseoff. An Evaluation Primer. Capitol Publications, Inc., Washington, D.C. 1978.

- Owens, Thomas and Warren D. Evans. Program Evaluation Skills for Busy Administrators. Northwest Regional Educational Laboratory, Portland, Oregon. 1977.

- Suzuki, Warren and Larry Kenneke. Evaluation of Occupational Exploration Programs. Oregon Department of Education, Salem, Oregon. 1977.

The individual, teacher educator, evaluation task force, or class which uses this handbook will be led to new understandings regarding program evaluation. People will be at once awed by the magnitude of major dimensions of the problem and warmed by their ability to secure helpful resources and cope with evaluation problems.

EVALUATION OF
CAREER EDUCATION PROGRAMS

SECTION I

EVALUATION OF CAREER EDUCATION PROGRAMS

Evaluation is the definition, collection and reporting of information on student achievement and the learning environment. We assume that the evaluation of career education components of teacher education programs requires clearly defined competencies and valid evidence that the selected competencies have been achieved. Competencies for career education may be derived from many sources including the ICCE publication entitled "Career Education Personnel Certification and Program Accreditation," July, 1976. A shopping list of career education competencies for teacher preparation drawn from this ICCE publication appears at the back of this handbook (Appendix A). You may wish to use these competencies when you plan for and conduct an evaluation of the career education component of your teacher preparation program.

Why Evaluate?

Career education has promised the public and its representatives many things. The public is now questioning whether or not we are fulfilling our promises. Federal and state legislators are asking whether or not what we are doing makes any difference to teacher performance. Legislators and taxpayers are becoming increasingly more reluctant to provide funds for programs which cannot explicitly demonstrate their effectiveness. Evidence of teacher-trainee success can be used as justification.

Professionals committed to providing teacher education of high quality realize that program revision and updating are a way of life. Decisions on whether or not to change and on what kinds of changes should be made to a teacher education program should be based on explicit information on

teacher-trainee performance and how trainees attain program goals and competencies. Rigorous outcome evaluation and process evaluation can provide this information.

An evaluation can serve a variety of purposes. The purpose of an evaluation depends on (1) the type of decisions that need to be made as a result of the evaluation, (2) the phase of the teacher education program, and (3) the information needs of those who are expected to use the evaluation results.

Who Evaluates?

Everyone connected with teacher education programs has a responsibility in the evaluation process. Responsibilities will vary from one institution to another. Following are some examples of who may do what in the evaluation process:

1. Personnel who are directly responsible for helping teacher-trainees attain desired outcomes could:

    1.1 Write performance standards;
    1.2 Collect data on teacher-trainee performance; and
    1.3 Collect information on the means by which teacher-trainees achieved desired outcomes.

2. The career education liaison person/coordinator could:

    2.1 Assist faculty members to develop standards;
    2.2 Analyze teacher-trainee performance data;
    2.3 Analyze data on means by which teacher-trainees achieved desired outcomes; and
    2.4 Prepare evaluation reports.

3. Everyone connected with the teacher preparation program should participate in scheduling evaluation activities.

How Do You Plan For Evaluation?

A good plan is basic to any evaluation process. An evaluation plan will help you think through who needs what information when and in what format. A good evaluation plan is one that will:

- Help you think through the entire evaluation process.
- Provide a working frame of reference for making decisions, handling crisis, and checking that activities are on target.
- Be carefully refined, continuously updated, and sometimes drastically changed as you learn from experience and discover new avenues.
- Be a means to an end -- a "working document" -- rather than an end in itself.

What Are The Types Of Evaluation?

There are at least four basic types of evaluation. Each type can help monitor a different phase in the life of the career education endeavors of a teacher education program.

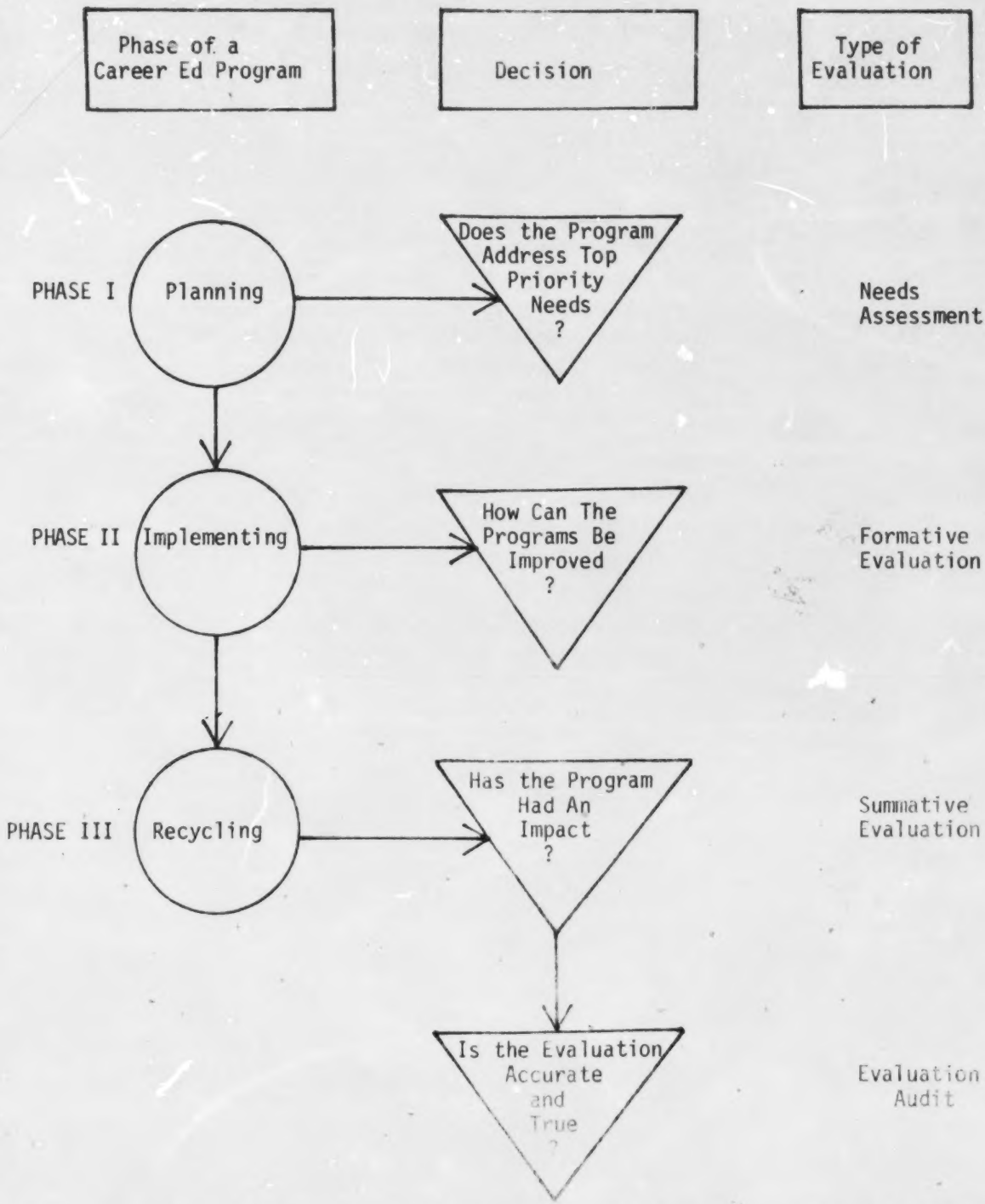
One type of evaluation is done in the initial planning phase of the program so that the effort can be focused on meeting the important needs. This type of evaluation, referred to as needs assessment is used to help make planning decisions.

A second type of evaluation called formative evaluation, occurs while a program is being implemented to collect information about how it can be improved. Formative evaluation serves "implementing decisions" (decisions about how well the program is being implemented as planned and what aspects of the program should be modified).

A third type of evaluation focuses on the total worth of a program -- its success in achieving objectives, overall effectiveness for the funds expended, and impact on the intended audiences. This type of evaluation, referred to as summative evaluation, often occurs near the end of the program but can occur whenever attainments occur. Summative evaluation is used to make "recycling decisions" (decisions about the future of a program or part of a program).

A fourth type is an evaluation by an external party to verify that the evaluation is relevant, accurate and reliable. This type, called an evaluation audit, is usually connected with an evaluation of the total worth of a program. Figure 1 portrays these four types of evaluation.

Figure 1
TYPES OF EVALUATION



Source: Adams & Walker. Improving the Accountability of Career Education Programs. The Center for Vocational Education, The Ohio State University, Columbus, Ohio. 1977.

PURPOSE CHECKLIST

Instructions: Answer each of the following questions for your career education program by checking (✓) the appropriate response in the space provided.

Yes	No	
☐	☐	Need. Is any type of evaluation actually needed?
☐	☐	Needs Assessment. Is information required about the priority needs and problems the career education component should address?
☐	☐	Formative Evaluation. Is information needed to monitor and/or improve the component as it progresses?
☐	☐	Summative Evaluation. Is information needed about the total worth of the career education component?
☐	☐	Objectives Based Evaluation. Is information needed about the success of the component in meeting its intended outcomes or objectives?
☐	☐	Goal-Free Evaluation. Is information needed about how well the career component meets standards of excellence for career education programs?
☐	☐	Audience-Based Evaluation. Are the information needs of various audiences to be answered through the evaluation?
☐	☐	Follow-Up Evaluation. Is information needed about the long-term impact of the program on participants (e.g., career placement, job satisfaction, job competency, etc.)?
☐	☐	Cost-Effectiveness Evaluation. Is information needed about the cost of the program in relationship to the outcomes produced?
☐	☐	Comparative Evaluation. Is information needed about how your program compares with other career education programs on common criteria?
☐	☐	Descriptive Evaluation. Is in-depth descriptive information (case studies, systematic observation, in-depth interviews, etc.) needed about the key features, activities and outcomes of the program?
☐	☐	Evaluation Audit. Is information needed to verify the accuracy of the evaluation?

Source: Adams & Walker. Improving the Accountability of Career Education Programs. The Center for Vocational Education, The Ohio State University, Columbus, Ohio. 1977.

Who Should the Evaluation Serve?

Evaluations are conducted to provide useful information for influencing decisions. Since people make decisions, evaluations will be more useful if they are designed with specific people in mind. There are usually three types of audiences for an evaluation study:

1. Decision makers, accrediting groups, and opinion leaders who will use the evaluation results to influence decisions about the future.
2. Program staff and participants who are directly affected by the evaluation.
3. The general public who would be interested in hearing about results but are not directly involved in the program.

The following checklist enumerates various audiences in these three categories who potentially might be served by your evaluation. Use the checklist to help decide which audiences should be served.

AUDIENCE CHECKLIST

Instructions: In the left-hand column, check whether the evaluation should serve each of the following audiences. In the right-hand column, place the audiences checked "yes" in rank order from greater to lesser importance. Use "1" as the highest rank.

2.1 Decision Makers, Accrediting Groups, and Opinion Leaders. Have the sanction and support of relevant decision makers and opinion leaders for the evaluation been secured?

Yes	No		Rank of Importance
☐	☐	Board of Higher Education	_____
☐	☐	TSPC	_____
☐	☐	Accrediting Bodies	_____
☐	☐	State boards of education	_____
☐	☐	Federal funding sponsors	_____
☐	☐	Advisory councils for teachers	_____
☐	☐	Legislators	_____
☐	☐	College or University Presidents or Deans	_____
☐	☐	_____	

2.2 Program Staff and Participants. Are program staff and participants involved in planning an evaluation? For Example:

Yes	No		Rank of Importance
☐	☐	Program staff (teachers, coordinators, administration)?	_____
☐	☐	Participants, usually students?	_____
☐	☐	Others involved in implementing the program (volunteers from business, industry, labor, the profession, or government)?	_____
☐	☐	_____	_____

2.3 General Public. Will the public be kept informed of the goals and results of the evaluation? For example:

Yes	No		Rank of Importance
☐	☐	Parents?	_____
☐	☐	Other concerned citizens in the local community?	_____
☐	☐	Professional colleagues in career education & evaluation?	_____
☐	☐	_____	_____

What Political Factors Affect Use of Evaluation Results?

Evaluations are, in part, political activities and thus are susceptible to political influences. Evaluations are conducted to help decision makers decide who gets what, so the political influences on evaluations, whether subtle or blatant, are numerous. Have you considered the political factors that influence your program and its evaluation? Many may be unique to your situation; some, such as those presented in the following checklist, are widespread. (Brickell, 1975).

POLITICS CHECKLIST

Instructions: Consider each of the following factors and indicate whether or not it influences your program by checking the appropriate box.

YES	NO		
☐	☐	Political motivation.	Was the evaluation initiated for basically political reasons.
☐	☐	Payoff.	Does the payoff for coming up with positive findings overshadow the payoff for conducting an effective evaluation?
☐	☐	Negative findings.	Have you thought about how you would handle unfavorable or non-significant findings about your program?
☐	☐	Realistic criteria.	Is your evaluation using realistic criteria for success?
☐	☐	Decision influences.	Will other sources of information besides the evaluation results be used to decide the future of your program?
☐	☐	Slanted evaluation.	Is the evaluation being unjustly slanted in either a negative or positive direction?

Political motivation. Evaluations are initiated for a variety of political reasons: to appease adversaries of a program, to reap a reward such as special funding or exemplary status, or to comply with requirements (even when there is no real interest in using the results). Evaluations are seldom initiated from a truly objective, apolitical point of view.

Payoff. The payoff for evaluators, program directors, and funding sponsors is usually to come up with positive evaluation results. Professional courtesy and a desire for continued business often make an evaluator just as anxious for positive results as the program staff. Evaluators have been known to sit on the sidelines throughout the evaluation voicelessly cheering, "make a significant difference." Program directors and staff naturally want to see their program praised and evaluated favorably. Even project monitors and funding sponsors want positive evaluations. After fighting to secure funds for a program, helping to nurse it through the rough spots and praising the program to constituents, project sponsors are much happier when an evaluation reveals positive outcomes.

Political pressures may encourage an evaluator to eliminate or play down negative findings in reports and thus present an inaccurate or misleading picture of the program.

It is your role to facilitate an effective and objective evaluation of your program.

Negative findings. A wise saying, first espoused by Rossi (1972), is "no good evaluation goes unpunished." Evaluations can usually be discredited on some basis: inaccurate data, faulty instruments, misunderstanding the program, incompetent interviewers, biased data interpretations, slanted writing tone, etc. If someone is not satisfied with the results of an evaluation, it is often easy to find weaknesses in the report. Encourage evaluators to provide specific and balanced information about the program's strengths and weaknesses. Ask for constructive feedback so the weaknesses of the program can be improved.

Realistic criteria. Evaluations are sometimes conducted with unrealistic criteria. For example, a program to provide inservice training for teachers in career education infusion tactics may be evaluated using student learning as the criterion. It would be difficult for even the best teacher training program to make significant, measureable differences on student learning. An evaluation using this criterion would probably be disappointing.

Decision influences. Evaluation results are usually treated as only one basis for making decisions. Consequently, a program with highly positive results may be terminated because its substance is not a high priority item in a given year. Another program may have had no measureable impact but receive double funding after an especially effective testimony before legislators.

Slanted evaluation. The art of evaluating career education is at an early stage of development. Because the evaluation tools are limited, it is impossible to have a clear-cut, totally decisive evaluation finding. Given the state of art, it is possible to use evaluation, in some instances, as a pawn. Two evaluations of the same program could have directly opposing results -- one positive, the other negative.

SUMMARY OF SECTION I

Having assessed your audience you are now in a better position to decide on the procedures to use and the answers to seek. As you proceed, it may be wise to check back to your work in this first section to assist in your decision making on the specific details yet to be included.

NOTE TO THE HANDBOOK USERS

The next two sections are divided into steps and substeps. They are highly procedural in nature. It is imperative that you take each step and substep one at a time and in the prescribed order.

In Section II you will identify the competencies you wish to evaluate, list the activities which lead to fulfillment of the competencies and write evaluation questions. In Section III you will develop an information collection plan for each competency you wish to evaluate. The third and last section of this handbook will help you with the communication and dissemination of the evaluation results.

IDENTIFYING COMPETENCIES AND EVALUATION QUESTIONS

SECTION II

IDENTIFYING COMPETENCIES AND EVALUATION QUESTIONS

Introduction

Evaluation of the career education component of a teacher education program should focus on the extent to which students are attaining desired career education behaviors. The collection of accurate information on student achievement can be facilitated through the use of well written statements of competence. This information will better communicate the intentions of your program to teachers, deans, department chairpersons, accrediting bodies, and most importantly, students. Defining career competencies will help you to implement Oregon's career education competencies for teachers.

Procedure

Figure 2-1 is a suggested format for documenting information on the evaluation of the career education component of your teacher preparation program. It appears on the following page. Figure 2-2 is an example of how the suggested form may be completed. You may use your own form if it can accommodate all of the information shown in the suggested Competency Description Worksheet. A master copy from which working copies can be made is provided in Appendix B.

Secure a blank Competency Description Worksheet and go to Step 1.

Figure 2-1
COMPETENCY DESCRIPTION WORKSHEET

Complete this worksheet with the following in mind:
For whom the evaluation is intended and for what purpose?

LINE 1: CAREER EDUCATION COMPETENCY
Write one career education competency you wish the teacher-trainee to possess.
LINE 2: ACTIVITIES
List the activities used to help teacher-trainees achieve the competency listed on line 1.
LINE 3: EVALUATION QUESTIONS
First: Write evaluation questions that are drawn from the activities shown in line 2. Second: You may also write evaluation questions that are not specifically based on the activities shown in line 2. However, the question should relate to the competency shown in line 1.

Figure 2-2
EXAMPLE OF A COMPLETED COMPETENCY DESCRIPTION WORKSHEET

Complete this worksheet with the following in mind:
For whom the evaluation is intended and for what purpose?

LINE 1: CAREER EDUCATION COMPETENCY
The teacher-trainee is able to locate sources of occupational information.
LINE 2: ACTIVITIES
·Interaction with the computerized version of the career information system. ·Special curriculum materials emphasizing sources of occupational information are used. ·Classroom discussions led by the career awareness and exploration specialists are conducted.
LINE 3: EVALUATION QUESTIONS
·How many teachers-in-training were able to use the computer terminal to access the career information system? ·How many teachers-in-training used special curriculum materials that emphasized sources of occupational information? ·Did the career awareness and career exploration specialists conduct classroom discussions? ·How much have teachers-in-training improved in their ability to locate sources of occupational information?

STEP 1 STATE CAREER EDUCATION COMPETENCIES

1.1 Do you have career education competencies for your teacher preparation program? A competency describes a desired behavior for a teacher-in-training.

EXAMPLE

Locate sources of occupational information

1.2 If you have career education competencies, write each one you wish to evaluate on line 1 of a separate Competency Description Worksheet, then go to Step 2. If not, go to Step 1.3.

1.3 Competencies for career education may be derived from the ICCE publication entitled "Career Education Personnel Certification and Program Accreditation," July, 1976. A shopping list of these competencies for teacher preparation appears in Appendix A. You may wish to use some of these competencies for your program.

1.3.1 Write each competency you wish to measure on line 1 of a separate Competency Description Worksheet, then go to Step 2.

STEP 2 STATE ACTIVITIES

2.1 For each competency you wish to evaluate, describe the program activities that will lead to fulfillment of that competency. An activity is a means of achieving a competency.

EXAMPLE

Competency: Locate sources of occupational information.

Activities:
- o Interaction with the computerized version of the career information system.
- o Special curriculum materials emphasizing sources of occupational information are used.
- o Classroom discussions led by the career awareness and exploration specialists are conducted.

2.2 Write program activities for each of the competencies you wish to evaluate on line 2 of each appropriate worksheet, then go to Step 3.

STEP 3 EVALUATION QUESTIONS

3.1 Evaluation questions are means for specifying all questions to be answered by the evaluation. These questions can take the following forms:

- o How well did the career component achieve its goals?
- o Were the career component's activities implemented as planned?
- o How effective were the activities in achieving the goals?
- o For which groups of teacher-trainees was the career component most/least successful?
- o How did internal and external social and political factors influence the career component's development and impact?
- o What social and political effects did the career component have on the environment in which it was implemented?
- o What did the career component cost?
- o How well was the career education component managed?
- o What are the merits of the career education component compared with alternative programs?

3.2 The evaluation questions might vary. In one situation the questions might be related to the program's goals, activities, and student competence, while in another they might focus on costs. In any case, the number of questions that can be answered depends upon your priorities and the money, time and resources available for evaluation. Evaluation questions are the heart of the evaluation, and all activities should be organized so that they can be answered efficiently.

3.3 The sources for educational questions are the competency and activities lines (lines 1 and 2 of the Competency Description Worksheet).

EXAMPLE

- How many teachers-in-training were able to use the computer terminal to access the career information system?
- How many teachers-in-training used special curriculum materials that emphasized sources of occupational information?
- Did the career awareness and career exploration specialists conduct classroom activities?
- How much have teachers-in-training improved in their ability to locate sources of occupational information?

3.4 Write evaluation questions on line 3 of each Competency Description Worksheet, then go to Section III.

COLLECTING AND ANALYZING INFORMATION

Section III

Introduction

Planning information collection for an evaluation requires finding the most efficient technique to answer evaluation questions. It further requires specification of the time and place for gathering information, and deciding who will participate in the evaluation and be responsible for collecting and analyzing the data.

Figure 3-1 is a suggested format for collecting information on the career education component of teacher education programs. It appears on the following page. Figure 3-2 is an example of how the suggested form is completed. You may use your own form if it can accommodate all of the information shown in the Data Collection Worksheet. A master copy from which working copies can be made is provided in Appendix C.

Figure 3-1
DATA COLLECTION WORKSHEET

Complete this worksheet with the following in mind:
For whom the evaluation in intended and for what purpose?

Line 1: EVALUATION QUESTION

In this space, write one evaluation question. You wrote some in Step 3 on the Competency Description Worksheet.

Line 2: DATA COLLECTION PROCEDURES

In this space describe how you will collect information to find an answer to the question listed on line 1 of this worksheet.

Line 3: ANALYSIS TECHNIQUES

In this space describe how the data will be analyzed and by whom.

Figure 3-2
EXAMPLE OF A COMPLETED DATA COLLECTION WORKSHEET

Complete this worksheet with the following in mind:
For whom the evaluation is intended and for what purpose?

Line 1: EVALUATION QUESTION

How much have the teachers-in-training improved in their ability to locate sources of occupational information?

Line 2: DATA COLLECTION PROCEDURES

During the Fall and Winter Term:

- *Career Education Coordinator will give professors-in-charge a rating scale to access teacher-trainees' ability to locate sources of occupational information.*
- *Department Chairperson will observe teacher-trainees as they locate sources of occupational information.*
- *Division Coordinator will interview teacher-trainees to ask their opinions about their own ability to locate sources of occupational information.*
- *Professors-in-charge will have teacher-trainees keep a daily log of the efforts to locate sources of occupational information.*
- *Evaluation person will give a pre- and post-test to teacher-trainees that measure their ability to locate sources of occupational information.*

Line 3: ANALYSIS TECHNIQUES

The career education liaison person will collect appropriate data from key personnel and compute percentages of achievers and non-achievers by year.

STEP 1: EVALUATION QUESTION

1.1 Write one evaluation question on line 1 of a Data Collection Worksheet. The evaluation questions were developed on the Competency Description Worksheet prepared in Section 2 of this handbook. You do not have to gather information on all the questions. Select only those questions which are important and feasible to answer. Write each one on line 1 of subsequent Data Collection Worksheets. You will have one Data Collection Worksheet for each evaluation question. Go to Step 2.

STEP 2: SPECIFYING DATA COLLECTION PROCEDURES

2.1 The method of collecting evaluative data should include:
(a) from whom evaluative information will be collected,
(b) when and where the information will be collected,
(c) by whom the evaluative information will be collected, and
(d) the instruments and forms that will be used to collect and document the evaluative information.

EXAMPLE

EVALUATION QUESTION: How much have the teachers-in-training improved their ability to locate sources of occupational information?

DATA COLLECTION PROCEDURES: During Fall and Winter terms:

- Career education coordinator will give professors-in-charge a rating scale to access teacher-trainees' ability to locate sources of occupational information.
- Department chairperson will observe teacher-trainees as they locate sources of occupational information.
- Division coordinator will interview teacher-trainees to ask their opinions about their own ability to locate sources of occupational information.
- Professors-in-charge will have teacher-trainees keep a daily log of the efforts to locate sources of occupational information.
- Evaluation person will give a pre- and post-test to teacher-trainees that measure their ability to locate sources of occupational information.

2.2 Specify the method of collecting evaluative data for each evaluation question.

2.2.1 Specify from whom and what information should be collected.

2.2.2 Specify who will administer the "test" or record teacher-trainee attainment of the competency and how this person will record the results. You may need to develop forms for recording trainee attainment. Keep three things in mind:
(1) the form should be easy to complete,
(2) the form should not take an undue amount of time to complete, and
(3) information on the form can be analyzed.

Figure 3-3 on the next page is an example of just such a form.

2.2.3 Specify when and where the data will be collected. Data collection may be on-going, e.g., when instruction is individualized and self-paced. "Tests" may be administered or trainee attainment recorded periodically, e.g., when instruction is group paced. Comprehensive testing over a number of competencies could be accomplished with a sample of students in a central location.

2.2.4 Because the time and resources available for an evaluation are usually limited, it is wise to consider a variety of potential evaluation instruments and then to analyze the alternatives and to select the minimal number needed to accomplish the job. Factors to consider in determining priorities among potential instruments of equal validity include:

1. Costs
2. Timing
3. Credibility of findings
4. Degree of obtrusiveness
5. Amount of coordination needed
6. Efficiency

2.3 Write the data collection procedures on line 2 of the Evaluation Worksheet. Repeat this process for each of the other competencies you wish to evaluate. Go to Step 3.

Figure 3-3

EXAMPLE OF A FORM FOR RECORDING TEACHER-TRAINEE ACHIEVEMENT

Teacher-Trainee	Competency Number								
	#1	#2	#3	#4	#5	#6	#7	#8	#9
Allen, Steven	3-1 / 75	3-1 / 75	3-2 / 75				4/3 / KJ		
Ballard, Joyce	3-1 / 75	3-1 / 75		3/15 / KJ	3/17 / HJ	3/21 / KJ			
Culpepper, C.J.	4-2 / 75	5-5 / 75					3/15 / KJ		

STEP 3: ANALYSIS TECHNIQUES

3.1 Briefly describe how the data will be analyzed and by whom. At minimum, the analysis should only be a tabulation or counting of the number of trainees who met and did not achieve a career education competency. The percentage of trainees who satisfied and did not satisfy the competency should then be computed. As an example, the statement could be: "The career education liaison person will tabulate that data and compute percentages."

EXAMPLE

The number and percentages of trainees meeting Competency #8

Students Attaining the Competency

Attainment	No.	%
YES	17	85%
NO	3	15%
TOTAL	20	100%

3.2 Other, more sophisticated analysis methods may be applied to your information. Some of these are:

- o Descriptive statistics
- o Correlation statistics
- o Regression
- o Univariate analysis of variance
- o Analysis of covariance
- o Multivariate analysis of variance
- o Chi square

Discussion of these methods is beyond the scope of this handbook. The reader interested in learning how to use these methods should consult appropriate references.

3.3 Write the methodology for analyzing evaluative data on line 3 of the Data Collection Worksheet. Repeat this process for each of the other competencies you wish to evaluate. When all competencies have analysis methods specified for them, Go to Step 4.

STEP 4: SCHEDULE EVALUATION ACTIVITIES

An orderly schedule of evaluative activities should be developed and revised each year. The schedule should be developed with the participation of all persons who will be collecting, transmitting, analyzing and reporting evaluative information. The schedule should be documented and distributed to all concerned parties. Although not a guarantee, a printed schedule could lessen the possibilities of things "falling through the cracks."

Two examples of evaluation schedules follow: The first Figure 3-4 is shown on the next page and illustrates one way in which a schedule could be documented. To develop such a chart, do the following:

LAY OUT THE CALENDAR. The calendar consists of vertical lines with months indicated as shown in the figure. The months should start from the first month in which data on teacher-trainee competencies is collected for a given evaluation report. The last month of the calendar should be the month in which you intend to distribute that published report.

DESIGNATE ON THE CALENDAR THE PERIODS DURING WHICH DATA ON THE COMPETENCIES WILL BE COLLECTED. Also designate the persons responsible for collecting the data on competencies. For example, in Figure 3-4, data on student attainment of competency #1 should be collected between approximately September 15 and October 15. Three professors, i.e., Gomez, Jones and Wright, will collect the data on competencies.

INDICATE THE APPROXIMATE DATE THAT THE COLLECTED DATA WILL BE PICKED UP AND TAKEN TO THE PERSON WHO WILL ANALYZE THEM. Also indicate the person who is responsible for this task. Figure 3-4 shows Martin as being responsible for picking up the evaluative data for competency #1 and #2 from Gomez, Jones and Wright on or about December 1. Martin should then deliver the data to Davis who will analyze them.

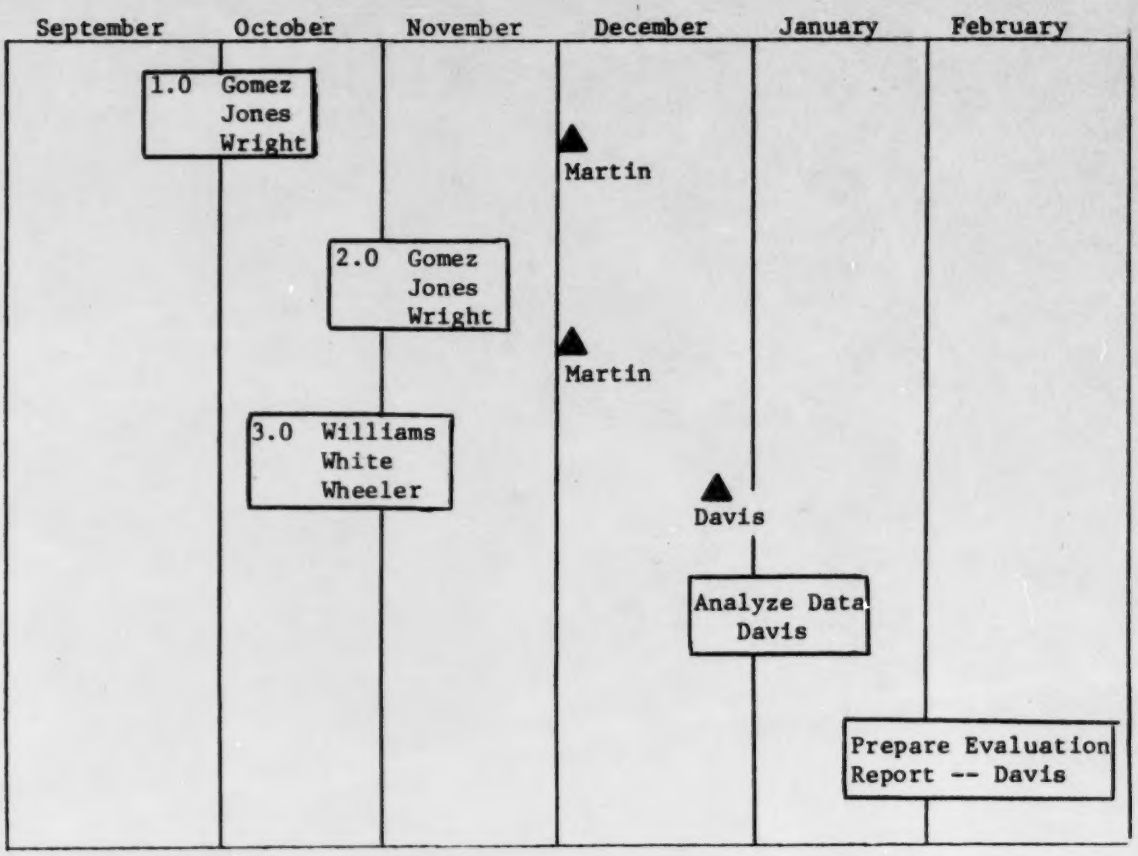
INDICATE THE TIME PERIOD AND PERSON(S) RESPONSIBLE FOR ANALYZING THE DATA AND PREPARING THE EVALUATION REPORT. Be sure to schedule enough time for analyzing the data and preparing the report. These tasks often take more time than anticipated. NOW IMPLEMENT YOUR EVALUATION PLAN.

A second evaluation schedule appears in Figure 3-5. To develop this schedule do the following:

- List the tasks that must be accomplished in order to answer the evaluation questions. (Column 1)

Figure 3-4

SCHEDULE OF EVALUATION ACTIVITIES



Key:

▲ = Collected Data Gathered and Delivered to Data Analyzer

- List the person(s) responsible for performing each task. (Column 2)
- List the time frame for accomplishment of each task. (Column 3)
- List the target (completion) date for each task. (Column 4)

NOW IMPLEMENT YOUR EVALUATION PLAN.

Figure 3-5
Alternate Schedule of Evaluation Activities

Column 1 Tasks	Column 2 Responsible Person(s)	Column 3 Time Frame for Accomplishment	Column 4 Target Completion Date

COMMUNICATING AND USING EVALUATION RESULTS

Section IV

COMMUNICATING AND USING EVALUATION RESULTS

A well written report of your program evaluation will be invaluable to many people and organizations. Teachers, administrators, advisory committees, governing boards and funding agencies use such reports as a basis for making decisions. Teachers use elements of the report to make decisions that directly affect the teaching/learning environment. Deans, directors and coordinators find reports an aid to making administrative decisions. As advisory committees provide counsel to education personnel, they require accurate program evaluation reports. Such reports further assist board members to make decisions regarding education policy. Well written evaluation reports are required by all agencies who provide funding to teacher education programs. Such agencies use this information to make decisions that affect level and continuation of funding.

There are six basic ways to share evaluation findings. They are described in the following Dissemination Checklist.

DISSEMINATION CHECKLIST

Instructions: Survey the six techniques listed below and check the ones that would be most appropriate for sharing your evaluation findings.

YES	NO	
☐	☐	Comprehensive technical report.
☐	☐	Technical report supplement with detailed recommendations for improvement for the program staff.
☐	☐	Executive summary.
☐	☐	Multiple short reports targeted to the information needs of different audiences.
☐	☐	Popularized reports.
☐	☐	News releases.
☐	☐	Oral presentation.
☐	☐	Audiovisual presentation.

Comprehensive technical report. A technical report is a comprehensive description of the evaluation procedures, the program itself, and the evaluation findings with concluding interpretation and recommendations. The technical report is intended as a back-up or source document and should have limited distribution. It would be appropriate for the funding sponsor and the key decision makers who are closely involved in the program.

Technical report supplement. An appendix or supplement can be added to the copies of the technical report intended for the program staff. This supplement (for in-house review) would contain indepth information about specific aspects of the program that need to be improved. This supplement might also contain information that is somewhat sensitive or so highly detailed that it would be of interest only to the program staff.

Executive summary. Most audiences receiving an evaluation report are most interested in the results than in the methodology. In addition, most audiences cannot afford to read carefully a well-documented and lengthy evaluation report. The executive summary is designed to present a brief overview of the procedures, the important findings, and the general recommendations. Obviously, all the material presented in the executive summary is contained in the technical report. This summary, usually one to ten pages in length, should make reference to the availability of the technical report. The reader of the summary can glean the important aspects of the study and, if interested, can pursue more detailed information in the technical report. This technique keeps busy administrators informed and increases the potential for utilization of the evaluation data and results.

Multiple short reports. If there is more than one audience for the evaluation results, several rather short reports targeted for specific

audiences may be more feasible than a technical report and an executive summary. Brickell (1974) found that decision makers prefer short (1 page) and medium (10 pages) reports over longer reports. Brickell also found that most decision makers request short reports for themselves and longer ones for their subordinates; however, when their subordinates were queried they requested short reports for themselves and longer ones for their subordinates, and so on down the hierarchy.

Popularized reports. A popularized report is a medium length (10-30 pages) report written without sophisticated terminology in a newsy, informative style. The popularized report provides a brief overview of the evaluation procedures and describes the program, especially unique or unusual activities, and the results of the evaluation. The results might be portrayed through anecdotes about the impact of the program on individual students as well as summaries of the major findings, conclusions, and recommendations.

News releases. Brief highlights of the evaluation findings can be communicated through local newspapers, newsletters, brochures, T.V. spots, and other media.

Oral presentation. If the audiences of the evaluation report are not academicians or administrators, oral presentations may have more impact than written ones. Even if the audiences are academicians or administrators, a formal oral presentation should be made. The oral presentation would include:

- a short statement on the purposes of the evaluation.
- highlights of evaluation techniques and results for each evaluation purpose.
- recommendations.
- examples of strategies and techniques for implementing recommendations.

Presenting evaluation results to a group or to an individual provides an opportunity to question the results, discuss their implications, and determine what steps should be taken to use the results. Through dialogue about the results, a constructive plan of action should be worked out to improve the program, make decisions, and/or gain increased support.

A group presentation could use several speakers (e.g., a student, a teacher, an administrator, an evaluator, and a project director) to discuss the effectiveness of the program from different points of view, or various individuals could present the results to constituents other than their own. For example, a teacher could present the results to a teachers' association, a parent to the PTA, a student to the student body, and a superintendent to the school board.

Audio-visual presentation. Evaluation results can be effectively communicated through audio-visual reports as well as written and oral ones. Pictures, transparencies, slides, slide-tape presentations, films, and video-tapes can be used to provide the audience with an easy-to-understand summary of the results. Audio-visual materials can also be used to share highlights or key features of the program in an appealing manner. However, most decision makers prefer the print medium to the audio-visual (Brickell, 1974). Audio-visual materials are most useful in group settings for formal presentations.

REPORT STANDARDS

No two evaluation reports can be expected to have exactly the same format and writing style, but most reports should contain the following seven elements:

Cover page	Results
Recommendations	Interpretations
Introduction	Summary
Evaluation Procedures	

Further information about each of these elements is provided below. (Adapted from Adams, 1976).

Cover Page

The cover page may give a descriptive title to the evaluation study, such as "Formative Evaluation Report for the Career Education Infusion Strategy Workshop" may be appropriate. If for a lay audience, then a more "catchy" title may be appropriate, such as "Report Card on Career Education Workshop."

This cover page should contain, in addition to the title, the date of the report, the dates of the project, the author of the report, and the notation that it is an evaluation report. If the report is for a limited, specified audience, the names of those authorized to see it may be included in a statement of the privacy of the information.

Recommendations

The recommendations generated as a result of the data analysis should be very accessible. If they are not presented on the first page, their location should be stated on the first page or in the table of contents. Each recommendation should generally be related to a specific decision faced by a reader or set of readers of the report. In many ways the recommendations are the culmination of the study and logically follow the results of their interpretation. The entire impact of the evaluation may rest on the clarity, relevance, and credibility of the recommendations. In a technical report, each recommendation should generally be related to

specific data. An excellent example of such a procedure is contained in the Carnegie Reports.

Introduction

The introduction should provide a description of the project/activity evaluated and a brief overview of the purpose of the evaluation study and the intended audiences for the evaluation report.

Evaluation Procedures

This section should include descriptions of the instruments used, the overall evaluation framework, the limitations of the study, and the sources from which data were collected. If the report is technical, the procedures may appropriately be written in a style similar to an experimental study. If the report is popular, the procedures should be briefly described in non-technical language.

Results

The results should be presented both in simple summary tables, when appropriate, and in a short summary description. If the report is of a technical nature, the results may need to be reported in detail so that they can be related to each recommendation.

EXAMPLE FORMAT

An eleven step report format follows:

STEP 1: PREPARE A BACKGROUND DESCRIPTION

A description of the program background sets the stage for the entire report. It helps the reader develop a mental picture of

the environment in which the program has evolved. It should contain a description of the state, institutional, and school/college setting.

The description of the state setting should include the location of the school, population of the state, major industries/businesses within the state, and other significant characteristics which could impact on attitudes toward teacher education programs.

The description of the institutional and school/college setting should include enrollment for the institution and school/college, the norms served, the characteristics of students prior to entry in the school, and other significant characteristics which could impact positively or negatively on teacher preparation (e.g., administrator and teacher attitudes).

STEP 2: PREPARE A RATIONALE STATEMENT

A rationale statement provides the reader with the underlying reason for the teacher preparation program. It contains an explanation of student needs and/or norm deficiencies. The statement further gives the reader an idea of what has been done to correct the problem. The rationale serves to guide the reader's opinion and action solely by what is considered reasonable. A rationale should include a description of student need or deficiencies and action taken to correct the problem.

STEP 3: PREPARE A DESCRIPTION OF THE TEACHER PREPARATION PROGRAM

This description gives the reader a mental image of important program characteristics, e.g, performance standards, learning

activities, resources, and staff development activities. A description provides the reader with evidence that the program is a logical outgrowth of student needs and/or norm deficiencies.

STEP 4: PREPARE A DESCRIPTION OF THE EVALUATION PROCESS

Through a description of this process, the reader can see the kinds of procedures used to conduct evaluations. In this manner the reader is prepared for the next section, "Findings." A description of the evaluation process helps the reader understand where and how the data in the findings section were derived.

A description of the evaluation process should include how and by whom information on student achievement was collected and analyzed. Briefly describe how and by whom information on student learning activities, resources, and staff development activities was collected. If someone, such as an advisory committee or council, was used to review information, it should be noted.

STEP 5: WRITE FINDINGS OF THE EVALUATION

Findings provide the reader with results of the analysis of student data. Findings are the basis upon which conclusions are drawn. Accurately written findings enable a reader to substantiate the validity of conclusions.

Describe briefly the results of the analyses of data on student achievement of competencies. Organize findings around achievement of competencies. Use tables, figures

and diagrams to facilitate the communication of the findings when needed. Tables, figures and diagrams should be self-explanatory.

STEP 6: WRITE CONCLUSIONS

Conclusions are logically derived from the findings of the program evaluation. They provide the reader with inferences or reasoned judgments about the teacher preparation program. Conclusions are logically derived from the findings. Conclusions are inferences or reasoned judgments about the extent to which students achieved desired competencies.

STEP 7: WRITE RECOMMENDATIONS

Recommendations are logically derived from the conclusions. They provide the reader with suggestions for action and/or suggestions for further study.

Recommendations must be logically derived from the conclusions. If a competency is not being attained, make recommendations on improving the process (student learning activities, resources, staff development activities) for those behaviors that students did not satisfactorily achieve. When students attained a competency, the recommendations should be concerned with improving the efficiency of the process. Information collected during the evaluation could help you make recommendations for the improvement of deficiencies identified in the "Findings."

STEP 8: PREPARE APPENDICES

The appendices consist of matter added to the back of the report such as bibliography, notes, questionnaires, or tabular information.

This matter is not essential to the completeness of the report. It does, however, give the reader more information about selected items contained within the body of the report.

The appendices should be clearly designated by letters (A, B, C, etc) and titles (Objective Student Data, etc.). Each appendix should be clearly referenced in the body of the report. A table should be self-explanatory.

STEP 9: PREPARE AN ABSTRACT

An abstract provides the reader with a summary of the evaluation report. It concentrates on the essential qualities of the program, conclusions and recommendations. Through the abstract a person can get a general idea of what has occurred as a result of the program evaluation. Abstracts are a most useful means of communicating the effectiveness of your teacher preparation program to administrators and governing board members.

The abstract should be brief. It should be single spaced and no longer that one page. Specify the program title and institution. Summarize the characteristics of the program (program description). Write the conclusions and recommendations of the abstract in the same manner as they appear in the body of the report.

STEP 10: PREPARE THE COVER PAGE

The cover page helps the reader quickly identify a desired report. It indicates that which is contained within the document.

The cover page should clearly identify the type of report (evaluation, final, interim), what was evaluated (teacher preparation in _____ norm), the school in which the school or program exists, and the date of publication.

STEP 11: ARRANGE REPORT ITEMS IN PROPER ORDER

For clarity and ease of reading, items should be placed in a logical order. The reader should be able to identify the document easily. A title page will fulfill this need. A second page, the abstract, should give the reader an overall picture of the entire report. If the report is a lengthy one, a table of contents should follow to assist the reader in locating information. Interpretation of the report will be greatly facilitated if items are reported in the following order: background, rationale, program description, evaluation process, findings, conclusions, recommendations and appendices. This sequence will help the reader build an understanding of the environment in which the program has been developed and the conditions under which findings, conclusions and recommendations were derived.

The order in which items should appear is as follows:

Title Page
Abstract
Table of Contents (if needed)
Background
Rationale
Program Description
Evaluation Process
Findings
Conclusions
Recommendations
Appendices (optional)

Rating Report Components

The following checklist may prove helpful when you wish to examine the components of your evaluation report.

CHECKLIST FOR RATING THE COMPONENTS OF THE EVALUATION REPORT

Instructions: Examine your evaluation report with respect to the following list of components by checking the appropriate responses.

	Well Stated	Needs Better Statement	Not Stated	Not Applicable
Recommendations	☐	☐	☐	☐
Introduction				
Purpose of the evaluation	☐	☐	☐	☐
Questions to be answered	☐	☐	☐	☐
Audiences to be served	☐	☐	☐	☐
Description of the Program Being Evaluated				
Document needs for the program	☐	☐	☐	☐
Subject matter	☐	☐	☐	☐
Objectives	☐	☐	☐	☐
Instructional procedures/ program activities	☐	☐	☐	☐
Students: characteristics, type, & number involved	☐	☐	☐	☐
School setting and staff involvement	☐	☐	☐	☐
Community setting	☐	☐	☐	☐
Costs: total & per pupil, amount needed for initial start-up & continuation	☐	☐	☐	☐

	Well Stated	Needs Better Statement	Not Stated	Not Applicable
Evaluation Procedures				
Overall framework	☐	☐	☐	☐
Information sources (population sample)	☐	☐	☐	☐
Data collection procedures/ research design	☐	☐	☐	☐
Instruments used	☐	☐	☐	☐
Data analysis procedures	☐	☐	☐	☐
Limitations, constraints, & possible sources of bias	☐	☐	☐	☐
Results				
Program outcomes in relationship to needs of constituency	☐	☐	☐	☐
Attainment of objectives	☐	☐	☐	☐
Unintended outcomes and social benefits	☐	☐	☐	☐
Cost-effectiveness	☐	☐	☐	☐
Interpretation				
Value of the outcomes	☐	☐	☐	☐
Conclusions	☐	☐	☐	☐
Summary	☐	☐	☐	☐

Rating Report Quality

Consider using the following checklist to assess the overall quality of your evaluation report.

CHECKLIST FOR RATING THE OVERALL QUALITY
OF THE EVALUATION REPORT*

Instructions: Rate your evaluation report according to the following criteria by checking the appropriate responses.

YES	NO		
		Accuracy	
☐	☐	Validity.	Does the evaluation evidence present a true and fair picture of the program?
☐	☐	Reliability.	Would someone repeating the evaluation obtain similar findings?
☐	☐	Appropriate analysis.	Is the evaluation information analyzed with appropriate techniques?
☐	☐	Credible conclusions.	Are the conclusions legitimately drawn from the findings?
☐	☐	Objective reporting.	Are the results presented and interpreted credibly, in the context in which they were collected, without overstatement?
		Utility	
☐	☐	Information scope, selection & balance.	Does the report focus on the most significant aspects of the program being evaluated?
☐	☐	Audience accommodations.	Is the report written with the audience's values, information needs, & level of knowledge in mind?
☐	☐	Timelines.	Is the report timed appropriately to facilitate use?
		Feasibility	
☐	☐	Realistic.	Is the report constructive, specific, action-oriented, and sensitive to the resources available for program improvement?
☐	☐	Readibility.	Is the language, length, and organization appropriate to reader's needs?
☐	☐	Political viability.	Does the report illustrate knowledge of and sensitivity to the political context in which the program operates?

*adapted from Standards for Educational Evaluation, Joint Project to develop guidelines for educational evaluation (1977, draft version).

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APPENDIX

APPENDIX A

CAREER EDUCATION COMPETENCIES

To assist in the task of elaborating the career education competencies to be required of teacher candidates in Oregon, several lists of career education competencies have been collected and will be made available to the study committee.

Two lists of competencies which represent opposite ends of the continuum from general to specific are presented below. The Four-State Project for Career Guidance for Classroom Teachers identified eight (8) basic competencies. They are:

1. Enable learners to identify and clarify personal abilities, interests and values in relation to their career development.
2. Enable learners to discover the interactions and relationships among life roles, personal life styles, and occupational choices.
3. Demonstrate a knowledge of appropriate use of commercially produced and teacher-made tests in assisting the learners in their career development.
4. Provide the learners with occupational information.
5. Identify and use school and community resources which will assist the learners in their career development.
6. Enable learners to identify and understand the differences in working relationships associated with various occupations.
7. Enable learners to acquire and apply decision-making skills.
8. Work with the learners in involving parents in the learners' career development.

The Planning Resource for Career Education Research in Personnel Development K-12 a publication from the National Center for Vocational Education at The Ohio State University contains a list of 105 goals or competencies for

teachers in training. They are as follows:

The teacher in training will -

1. Develop and/or extend knowledge and understanding of relationships among education, careers, culture, and lifestyles.

2. Identify a working definition of career education.

3. Develop an understanding of career awareness, career exploration, and career preparation concepts.

4. Delineate the basic principles that underlie career education.

5. Formulate a career education rationale through identification/understanding of career education principles and career-related skills.

6. Identify major goals of career education.

7. Differentiate between career education and career development.

8. Develop an understanding of the advantages and disadvantages of long-/short-range program plans for implementing career education.

9. Identify the skills and information of various developmental levels to be taught in the study of an occupation; include goals and objectives based upon career development concepts appropriate to various developmental levels.

10. Identify/differentiate career education resources (references in print and community persons) appropriate/necessary for accessing career information (occupational, educational, and personal-social).

11. Extend knowledge and understanding of the world of work, career clusters, or similar content sources regarding career information.

12. Develop and/or extend knowledge and understandings regarding the varied societal segments within a community and identify the implications/relationships of that knowledge of each segment for careers, education, family, lifestyles, and culture.

13. Describe the duties, working conditions, salary ranges, and other special characteristics associated with specific occupations within the career clusters of a career cluster system.

14. Develop a knowledge of manpower needs and employment trends at the local, state and national levels.

15. Develop skills and understandings regarding job placement and its implications for planning for teaching-learning.

16. Describe employment procedures used in hiring personnel.

17. Identify and develop understandings of career education concepts, career education roles, and the cooperation needed to implement career education as an integral part of educational experiences within the community.

18. Identify the implications of career education for the entire education of an individual student.

19. Develop a knowledge of the historical, philosophical, sociological, and psychological foundations of career education concepts.

20. Develop/apply appropriate and varied interpersonal skills necessary for planning and implementing career education experiences.

21. Identify, study and apply skills and guidelines designed to reduce worker alienation.

22. Develop a knowledge of intergroup differences in motives, attitudes, values and social norms and of their influence or response to schooling and careers.

23. Develop human relations skills and group counseling techniques to assist students with self awareness/career exploration.

24. Develop skills to collect, analyze, and utilize needs assessment data for the purpose of developing long- and short-term comprehensive career education program plans/instruction.

25. Develop an understanding and knowledge of child development as it relates to the world of work.

26. Identify general and specific career education goals based on career development concepts appropriate to child growth and development.

27. Develop a knowledge/conceptualization of the role of practicing staff members to achieve institutional career education goals and objectives.

28. Develop a rationale for infusing career education into the curriculum.

29. Identify the factors which influence career choice.

30. Develop/demonstrate an understanding of decision-making and problem-solving skills as they relate to career choice and career preparation.

31. Develop skills needed to act as a liaison and resource person to the community to keep it informed of new developments in career education.

32. Develop leadership skills for implementing career education in the school/community.

33. Identify/exhibit attitudes and behaviors toward students and careers which enhance self-concept development and create a positive teaching-learning environment.

34. Develop career education goals for a local school system.

35. Develop skills in planning and implementing student placement services.

36. Develop skills in conducting follow-up studies of former students (dropouts, graduates, and the like).

37. Develop an understanding and knowledge of the financial requirements of career education.

38. Identify/develop an understanding of the relationships of past/present minority, sex and equality concepts/roles/trends to careers and culture of career education.

39. Identify financial resources in a local education agency needed to support a total career education program.

40. Maintain liaison with state departments (education, finance, labor, and the like) for long-range/short-range career education planning.

41. Clarify developmental tasks and roles of persons implementing career education.

42. Establish communications among career education personnel regarding developmental roles and tasks of persons implementing career education.

43. Organize/coordinate school and community understanding and support for career education experiences/instruction for youth and adults.

44. Maintain liaison with community groups/activities significant to career education planning and implementation.

45. Plan/arrange for wide community participation in career education policy decision-making.

46. Plan/design/establish staff development inservice programs for career education.

47. Develop leadership skills in supervision/coordination of career education curriculum development and implementation which builds in articulation, quality, and improvement of instruction.

48. Develop/coordinate "team efforts" (educators and community persons) in planning/implementing career education personnel development programs.

49. Develop/coordinate/implement "team efforts" among school/community personnel in the teaching-learning process--instruction and/or performance experiences in career education.

50. Develop a sound financial management plan for career education at the local level.

51. Identify and/or plan and establish appropriate placement and referral services for individual students.

52. Develop curriculum goals and objectives which pertain to career education.

53. Develop career education objectives in the cognitive, affective, and psychomotor domains.

54. Revise existing instructional programs such that career education goals and objectives are specified for various grade levels.

55. Develop learning activities which infuse/integrate career awareness, career exploration, career preparation concepts into appropriate developmental levels of a curriculum.

56. Involve students and community personnel in the design/implementation of career oriented instruction.

57. Plan/implement learning experiences which are integrated with respect to education, careers, culture, home, family and lifestyles.

58. Plan/implement learning experiences which provide the opportunity to distinguish the interdependent relationships among academic, vocational and career education skills and understandings.

59. Develop curricula that includes the self-analysis/self-evaluation process in career awareness, career exploration and career preparation.

60. Develop units of instruction involving basic information about the world of work.

61. Develop self-awareness experiences through which students can determine the assistance/resources needed to meet their career goals.

62. Design/implement individualized instructional units oriented for student career awareness, career exploration, and career preparation.

63. Plan/implement instruction which will develop students' awareness of both past and present trends of sex roles in the work world and the effect(s) present trends may have on responsibilities/roles in the home.

64. Design/implement valuing experiences which pertain to career education concepts.

65. Plan/implement career-related experiences where students develop analytical/research skills.

66. Plan/implement learning activities which involve problem-solving and decision-making skills in relation to career education concepts.

67. Plan/implement career-oriented activities which involve students in group interaction.

68. Plan/implement career-related learning activities which develop/extend students' manipulative skills.

69. Plan/implement career-related observation, participation, and on-the-job study learning experiences.

70. Design/implement career learning experiences which involve varied interactions between school and community personnel/ organizations/institutions.

71. Design/implement educational experiences and programs involving varied segments of society within the community.

72. Plan/implement teaching-learning experiences within varied community settings.

73. Plan/organize/schedule schools and work experiences, which are consistent with programs of the school and the employer, to meet the needs of the student-employee, the school, and the employer.

74. Develop learning activities that involve disadvantaged, minority, gifted, and handicapped students in career education.

75. Utilize reinforcement techniques in conducting career awareness, career exploration, and career preparation activities.

76. Utilize career-related group activities to develop the leadership and membership potential of students.

77. Utilize simulation, role playing, and gaming experiences appropriate for career awareness, career exploration, and career preparation.

78. Utilize hands-on experiences appropriate for career education activities.

79. Gather/organize/utilize a community resources file containing career education resources available from the community for use in the development of career education instructional materials.

80. Identify/involve community personnel (e.g., senior citizens; those in business, industry, labor; parents; those in professions within and outside education) in the teaching-learning process or experiences.

81. Educate and involve the total community through communications, models and media about career education values and activities.

82. Identify/utilize facilities and equipment (in and outside of school) necessary for career education.

83. Gather/develop/utilize/disseminate career-oriented resource materials (books, pamphlets, tapes, filmstrips, etc.) for use by students, teachers, and community persons.

84. Identify and provide a rationale for the role and function of evaluation in career education.

85. Identify the basic components of a comprehensive career education evaluation system.

86. Establish the evaluative criteria and apply evaluation skills for lessons, units, and courses in career awareness, career exploration, and career preparation.

87. Develop skills needed to utilize assessment techniques in the evaluation of career education activities.

88. Compare/evaluate various self-evaluation assessment instruments for use in career education.

89. Administer, score and interpret various self-evaluation instruments appropriate for use in career education.

90. Develop skills to select/develop self-instructional career education packages.

91. Identify/develop self-evaluation skills in career awareness, career exploration and career preparation.

92. Develop/demonstrate the methods and skills to assist students in assessing their interests, abilities, values, and needs.

93. Identify, and/or design, and implement varied objective and sub-objective evaluation techniques for career awareness, career exploration, and career preparation activities.

94. Identify techniques to assess performance skills in career awareness, career exploration, and career preparation.

95. Evaluate/correlate student performances with the stated career oriented goals and objectives.

96. Establish and utilize program review committees to evaluate curriculum goals and objectives based upon career development concepts appropriate for each grade level (K-12).

97. Design and implement evaluation techniques to determine the career development level of an individual.

98. Develop/demonstrate methods of assessing pupil growth in the ability to work with others.

99. Develop skills in analysis and utilization of needs assessment data.

100. Develop skills in the use of needs assessment instrumentation and implementation strategies.

101. Collect/analyze/relate employer and student data to determine and/or meet the needs of both.

102. Collect/assess/evaluate print and non-print career education materials/resources for students and career education personnel.

103. Develop techniques for identifying prospective students for specific occupational preparation (vocational/technical) classes.

104. Evaluate career education as an integral part of education.

105. Identify techniques for evaluating career-oriented curriculum and programs.

APPENDIX B
COMPETENCY DESCRIPTION WORKSHEET

Complete this worksheet with the following in mind:
For whom the evaluation is intended and for what purpose?

LINE 1: CAREER EDUCATION COMPETENCY
Write one career education competency you wish the teacher-trainee to possess.
LINE 2: ACTIVITIES
List the activities used to help teacher-trainees achieve the competency listed on line 1.
LINE 3: EVALUATION QUESTIONS
First: Write evaluation questions that are drawn from the activities shown in line 2. Second: You may also write evaluation questions that are not specifically based on the activities shown in line 2. However, the question should relate to the competency shown in line 1.

APPENDIX C
DATA COLLECTION WORKSHEET

Complete this worksheet with the following in mind:
For whom the evaluation in intended and for what purpose?

Line 1: EVALUATION QUESTION

In this space, write one evaluation question. You wrote some in Step 3 on the Competency Description Worksheet.

Line 2: DATA COLLECTION PROCEDURES

In this space describe how you will collect information to find an answer to the question listed on line 1 of this worksheet.

Line 3: ANALYSIS TECHNIQUES

In this space describe how the data will be analyzed and by whom.

EVALUATING CAREER EDUCATION TASK FORCE MEMBERS AND FIELD TRIAL TEACHERS

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